THE INVENTION CLAIMED IS

1. An ion mobility sensor for simultaneously detecting both ion and molecules, including:

a hollow housing,

a glow discharge ionizer mounted to one end of said hollow housing, and

a glow discharge detector mounted to an opposite end of said hollow housing.

2. The ion mobility sensor of Claim 1, wherein said glow discharge ionizer includes a hollow tube and a pointed member coaxially mounted in said hollow tube.

3. The ion mobility sensor of Claim 2, wherein said glow discharge detector includes a hollow tube and a pointed member coaxially mounted in said hollow tube.

4. The ion mobility sensor of Claim 3, wherein said hollow tube of each of said glow discharge ionizer and said glow discharge detector is mounted in opposite ends of said hollow housing.

5. The ion mobility sensor of Claim 4, wherein said glow discharge ionizer and said glow discharge detector are coaxially mounted in said housing and are coaxially aligned one with another.

6. The ion mobility sensor of Claim 5, additionally including a pair of conductive members mounted around said hollow tubes of said ionizer and said detector, in contact with opposite ends of said hollow housing, and operatively connected to a power supply.

7. The ion mobility sensor of Claim 6, additionally including a plurality of conductive members mounted in spaced relation along a length of said hollow housing, and electrically connected to ground via a plurality of resistors.

8. The ion mobility sensor of Claim 7, wherein each one of said plurality of resistors in mounted intermediate an adjacent pair of said plurality of conductive members.

9. The ion mobility sensor of Claim 8, wherein said hollow housing is composed of a plurality of sections, and wherein said plurality of conductive members are each mounted intermediate adjacent pairs of said plurality of housing sections.

10. The ion mobility sensor of Claim 9, wherein each of said plurality of conductive members has an opening therethrough.

11. The ion mobility sensor of Claim 10, wherein each opening in said plurality of conductive members is in alignment with said pointed member of each of said glow discharge ionizer and said glow discharge detector.

12. The ion mobility sensor of Claim 11, wherein said pointed members of said glow discharge ionizer and said glow discharge detector are mounted such that points of said pointed member are aligned with and directed toward each other.

13. The ion mobility sensor of Claim 12, in combination with an as chromatograph.

14. In an ion mobility sensor, the improvement comprising:

a mechanism for simultaneously detecting both ions and molecules passing therethrough.

15. The improvement of Claim 14, wherein said mechanism includes a pair of spaced aligned glow discharge devices, one functioning as an ionizer, and one functioning as a detector for ions and molecules.

16. The improvement of Claim 15, wherein each of said glow discharge devices including a hollow tube and a pointed member coaxially mounted in said hollow tube.